Lake Powell Branch Update - Sunday, August 16, 2015

EPA Sampling Activity:

Today EPA and START completed surface water and sediment sampling of Lake Powell. On Sunday, surface water and sediment samples were collected from five locations on the main stem of Lake Powell, including the following: Rock Creek Bay, Gregory Butte, Princess Cove, Navajo Canyon and the Glen Canyon Dam. On Saturday, the EPA/START sampling team collected samples from six locations including the presumed San Juan River inflow into Lake Powell between Zahn Bay and Great Bend, the presumed "plunge line" where river water plunges beneath lake water just east of Great Bend, Paiute Wash and Bald Rock Canyon. EPA was greatly assisted by NPS Glen Canyon National Recreation Area personnel, who provided all logistical support including a 46 and a 26 foot vessel and three personnel.

While the team was able to sample Lake Powell from the Glen Canyon Dam to the San Juan River delta there are significant gaps in data. For one, there are a relatively small number of sample locations – 11 total. Also, available sampling tools limited the effort to shallow water sampling locations. Because much of Lake Powell is several hundred feet deep, the team was unable to sample at those areas.

Wider Study of Lake Powell:

Given that Lake Powell is a hugely critical resource, the Lake Powell Branch believes it is extremely important for EPA to evaluate potential impacts to the lake from the Gold King mine release. Team members have also received numerous phone calls from various agencies inquiring about the need to examine Lake Mead, although this would seem to be a less urgent or immediate need pending the outcome of Lake Powell sampling efforts.

The upcoming USGS/NPS Lake Powell Mercury survey beginning this week would give EPA the opportunity to almost immediately begin this evaluation, and the Lake Powell Branch suggests that it would be a big mistake to miss out on this generous invitation from both a data need and a public perception perspective.

The Lake Powell Branch will be reviewing the details of the Mercury sampling program and believes that this survey could be modified to include priority metals in their analytes list. Our goal would be to gain a better understanding of heavy metals distribution in the water column and sediment throughout Lake Powell. EPA would have to provide funding and or lab support to participate in this event, however it would be money well spent as it would cost much more to do this on our own.

The Lake Powell Branch will meet with NPS on Monday to address the objectives and logistics of their survey trip, and subsequently it anticipates working with the Farmington ICP in development of a Resource Request in support of this ten day expedition.

Further Evaluation of the San Juan River Delta at the Entrance to Lake Powell

Over time the Lake Powell Branch believes it will be critical to evaluate the San Juan River delta at the entrance to Lake Powell. This would seem to be a potential sink for contaminants released into the river system, and sediment sampling/coring in this area could shed light on contaminant releases over time. This area is very difficult to access. There is little or no road access and boat access is difficult due to shallow depths and heavy floating debris. This weekend, the sampling team was able to reach this area with some difficulty. More than likely the upcoming USGS/NPS survey team will not travel that far, so this is something that would have to be done independently of that effort.

State of Utah San Juan River Water Quality Analysis and Announcements:

The Utah DEQ Division of Water Quality has been providing its Gold King Release San Juan River Sampling data to EPA for our own analysis and review, and this data is being forwarded to Harry Allen, Ned Black and Gerry Hiatt.

This morning, EPA LNO Bill Robberson and EPA Region 9 WQ Data representatives Harry Allen, Michael Montgomery held a conference call with Dr. Erica Gaddis, Assistant Director of the Utah Division of Water Quality, Utah Department of Environmental Quality, with the purpose of collaborating on the interpretation of all available San Juan River response sampling data.

As a result of this call, the Lake Powell Branch will be considering submittal of a Resource Request to the ICP for sampling (by boat) of the San Juan River at Chinle Creek/Wash, which is East of Mexican Hat and West of Highway 191. The State of Utah DWQ believes that this area contributes significant and specific metals concentrations, especially during rain events, thus resulting in this request for sampling assistance.

EPA will be participating in the daily Utah DWQ - led "Agency Situation Update" Conference Call at 0700 PDT, and we will also be participating in a new daily "Data Interpretation" conference call with Utah DWQ and others at 2PM (1400) PDT / 3PM (1500) MDT. EPA will be providing a conference line for the "data" call.

Utah DWQ anticipates posting both graphs of its data and explanations of this data on Monday, August 17th. Utah DWQ data can be accessed at the following URL:

http://www.deq.utah.gov/Topics/Water/goldkingmine/index.htm

CONTINUED: Request for Data from the Navajo Nation:

One set of data that Utah DWQ would like to access is the historic data from Navajo Nation in the San Juan River. With a larger historic dataset they expect to be able to tease out the storm effects on their most recent sampling data. They have asked Navajo Nation directly, and the reply was positive, but they have not seen the data yet, they believe, because Navajo Nation has been busy with other things this week. The Farmingtion ICP is aware of the request and reportedly working on it.

CONTINUED: Request for EPA POC to discuss San Juan River Data Collaboration with Utah DWQ Director

The Director of the State of Utah Division of Water Quality, Utah Department of Environmental Quality, Mr. Walt Baker, would like to speak to someone at EPA regarding the desire to collaborate on gathering and interpretation of San Juan River sampling data and related Agency water quality monitoring information.

The State of Utah has been very progressive in their monitoring and sampling activities in response to the Gold King release, and they would:

- 1. Appreciate the opportunity to have early access to EPA sampling data to build a better picture of the status of the San Juan, and
- 2. DWQ would like to consider a partnership with EPA on a long-term assessment of the San Juan and perhaps Lake Powell.

An email request has been sent to the Farmington ICP (Bret Moxley) with a cc to others. Please keep the Lake Powell Branch aware of progress in fulfilling this important request.

<u>Utah U.S. Congressman Rob Bishop Visit on Monday, August 17th:</u>

Congressman Rob Bishop will be visiting Glen Canyon on Monday. This trip was scheduled prior to the Gold King Mine incident and will provide an opportunity for the NPS and EPA to provide an update. EPA Lake Powell Branch representatives Dunkelman and Robberson have been invited and encouraged by NPS GCNRA Superintendent Todd Brindle to participate.

Photos of Lake Powell Sampling Activities:

Today, EPA OSC Tom Dunkelman provided additional photos of the Lake Powell sampling events this weekend.